The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for selecting inverse discrete cosine transform (iDCT) algorithms, comprising:

a) examining the coefficients of a plurality of DCT blocks corresponding to selected frames within a video shot to determine an End of Block (EOB) length for each of the examined DCT blocks, wherein a video shot is a sequence of frames bounded on each side by a video transition;

b) examining a distribution of EOB lengths associated with a single selected frame;

c) selecting a customized subset of iDCT algorithms for the entire video shot from a larger set of iDCT algorithms according to the distribution of EOB lengths for the single selected frame; and

d) selecting and executing one of the customized subset of iDCT algorithms for each of the plurality of blocks within the video shot according to the associated EOB lengths of the blocks.

2. (Cancelled)

3. (Previously Presented) The method of claim 1, wherein said larger set of iDCT algorithm includes an iDCT_Normal algorithm, an iDCT_AC algorithm, an iDCT_high algorithm, an iDCT_low algorithm and an iDCT_DC algorithm.

4. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) means for examining the coefficients of a plurality of DCT blocks corresponding to selected frames within a video shot in order to determine an End of Block (EOB) length for

each of the examined DCT blocks, wherein a video shot is a sequence of frames bounded on each side by a video transition;

b) means for examining a distribution of EOB lengths associated with a single selected frame;

c) means for selecting a customized subset of iDCT algorithms for the entire video shot from a larger set of iDCT algorithms according to the distribution of EOB lengths for the single selected frame; and

d) means for selecting and executing one of the customized subset of iDCT algorithms for each of the plurality of blocks within the video shot according to the associated EOB lengths of the blocks.

5. (Cancelled)

6. (Previously Presented) A computer program encoded on a computer readable medium containing instructions for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said instructions performing the steps of:

a) examining the coefficients of a plurality of DCT blocks corresponding to selected frames within a video shot to determine an End of Block (EOB) length for each of the examined DCT blocks based upon the position of the End of Block (EOB) coefficient;

b) examining a distribution of EOB lengths associated with a single selected frame ;

c) selecting a customized subset of iDCT algorithms for the entire video shot from a larger set of iDCT algorithms according to the distribution of EOB lengths for the single selected frame; and

c) selecting and executing one of the customized subset of iDCT algorithms for each of the plurality of blocks within the video shot according to the associated EOB lengths of the blocks.

7. (Previously Presented) The method of claim 3 wherein said iDCT_high algorithm is based upon an EOB length of 39 or 50.

8. (Previously Presented) The method of claim 3 wherein said iDCT_low algorithm is based upon an EOB length of 14 or 25.

9. (Previously Presented) The system of claim 22 wherein said iDCT_high algorithm is based upon an EOB length of 39 or 50.

10. (Previously Presented) The system of claim 22 wherein said iDCT_low algorithm is based upon an EOB length of 14 or 25.

11. (Previously Presented) A system for reducing inverse discrete cosine transform (iDCT) execution time, said system comprising:

a memory for storing a plurality of iDCT algorithms;

a computer processor for examining the coefficients of a plurality of DCT blocks corresponding to selected frames within a video shot to determine an End of Block (EOB) length for each of the examined DCT blocks, wherein a video shot is a sequence of frames bounded on each side by a video transition, examining a distribution of EOB lengths for a single selected frame, selecting a customized subset of iDCT algorithms for the entire video shot from a larger set of iDCT algorithms according to the distribution of EOB lengths for the single selected frame, and generating an iDCT algorithm selection signal that identifies one of the iDCT algorithms from the customized subset of iDCT algorithms to be executed by the processor for each of the plurality of blocks within the video shot according to the associated EOB lengths of the blocks; and

a switch connected to the processor and the memory that receives the selection signal from the processor and, in response, selects the identified iDCT algorithm for execution by the processor on the associated block.

12. (Previously Presented) The system of claim 11 wherein said switch accepts as input:

a) a block of DCT coefficients;

b) an End of Block address; and

c) a picture type bit rate.

13. (Previously Presented) The system of claim 11 wherein said plurality of iDCT algorithms further comprises: an iDCT_Normal algorithm, an iDCT_AC algorithm, an iDCT_high algorithm, an iDCT_low algorithm and an iDCT_DC algorithm.

14-18. (Cancelled)

19. (Previously Presented) The method of claim 1 wherein the video transition includes one from a group consisting of: a cut frame, a dissolve, or a cross-dissolve.

20-21. (Cancelled)

22. (Previously Presented) The system of claim 4 wherein the plurality of iDCT algorithms includes an iDCT_Normal algorithm, an iDCT_AC algorithm, an iDCT_high algorithm, an iDCT_low algorithm and an iDCT_DC algorithm.

23. (Previously Presented) A method as recited in claim 1 wherein examining the distribution of EOB lengths includes generating a histogram of EOB lengths for the examined DCT blocks representing a relative frequency of occurrence of EOB lengths for the single selected frame.

24. (Previously Presented) A method as recited in claim 1, wherein the selected frames are B frames.

25. (Previously Presented) A method as recited in claim 1, further comprising:

repeating (a) – (d) for a next video shot until a current video shot is a last video shot.

26. (Previously Presented) The system as recited in claim 4,

wherein the means for examining the distribution of EOB lengths includes means for generating a histogram of EOB lengths for the examined DCT blocks representing a relative frequency of occurrence of EOB lengths for the single selected frame.

27. (Previously Presented) The system as recited in claim 4, wherein the selected frames are B frames.

28. (Previously Presented) The system as recited in claim 4, wherein the system selects a customized subset of iDCT algorithms for each of the video shots in a video.

29. (Previously Presented) A method as recited in claim 1, wherein the single selected frame is the first B-frame of the video shot.